

ABSTRACT OF THE DISCLOSURE

A multi-chips stacked package comprises a substrate, an upper chip, a lower chip, a dam, a heat spreader, an underfill, a plurality of first electrically conductive bumps and a plurality of second electrically conductive bumps. The upper chip is flip-chip bonded to the upper surface of the substrate and the second chip is accommodated in the opening and flip-chip bonded to the upper chip. Furthermore, the dam is disposed on the substrate and supports the heat spreader so as to fix the heat spreader to the back surface of the first chip. In addition, the underfill is filled into the space which is enclosed by the dam, the upper surface of the substrate and the heat spreader. In such a manner, at least the upper chip, the lower chip, the first and second electrically conductive bumps and a portion of the substrate are covered by the underfill. Thus, the underfill is connected to the dam, the heat spreader and the substrate simultaneously, so the reinforced structure including the heat spreader, the underfill and the dam can restrain the thermal deformation of the substrate and the upper chip and prevent the first electrically conductive bumps connecting the upper chip and the substrate from being damaged.